Design DFA using simulator to accept the input string 'a', 'ac" and 'bac'.
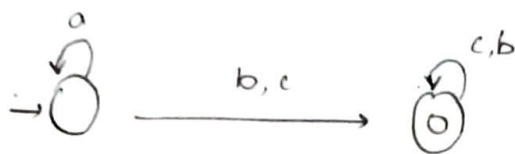
Design PDA with I/p String aabb.

Design PDA using simulator to accept the input using aabb.
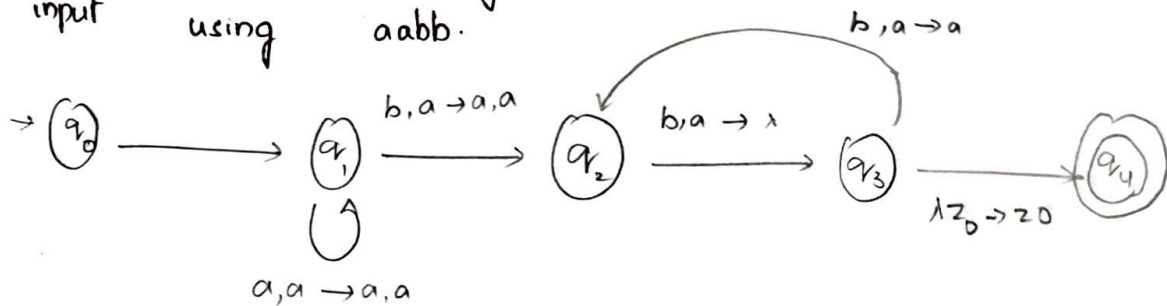
$$\delta (q_0, a, z_0) = (q_1, a, z_0)$$
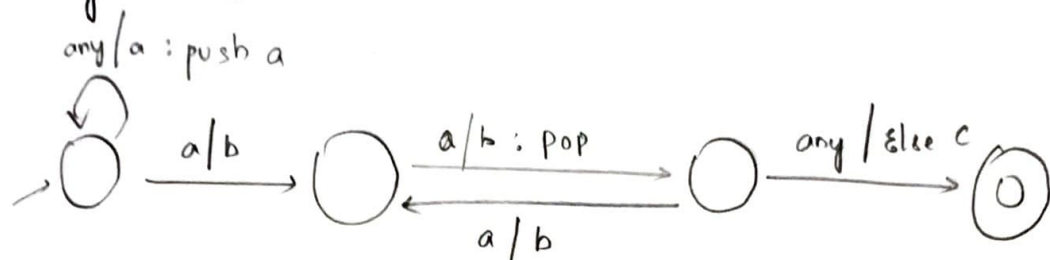$$\delta (q_1, a, a) = (q_1, aa)$$
$$\delta (q_1, b, a) = (q_2, aa)$$
$$\delta (q_2, b, a) = (q_3, \lambda)$$
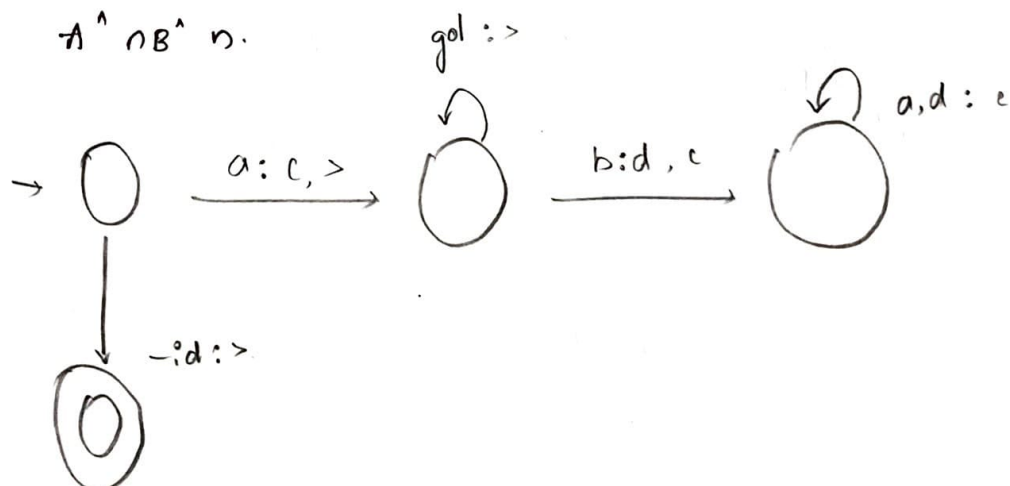$$\delta (q_3, \lambda, z_0) = (q_4, z_0).$$

design PDA with I/p $a^n ab^{2n}$.

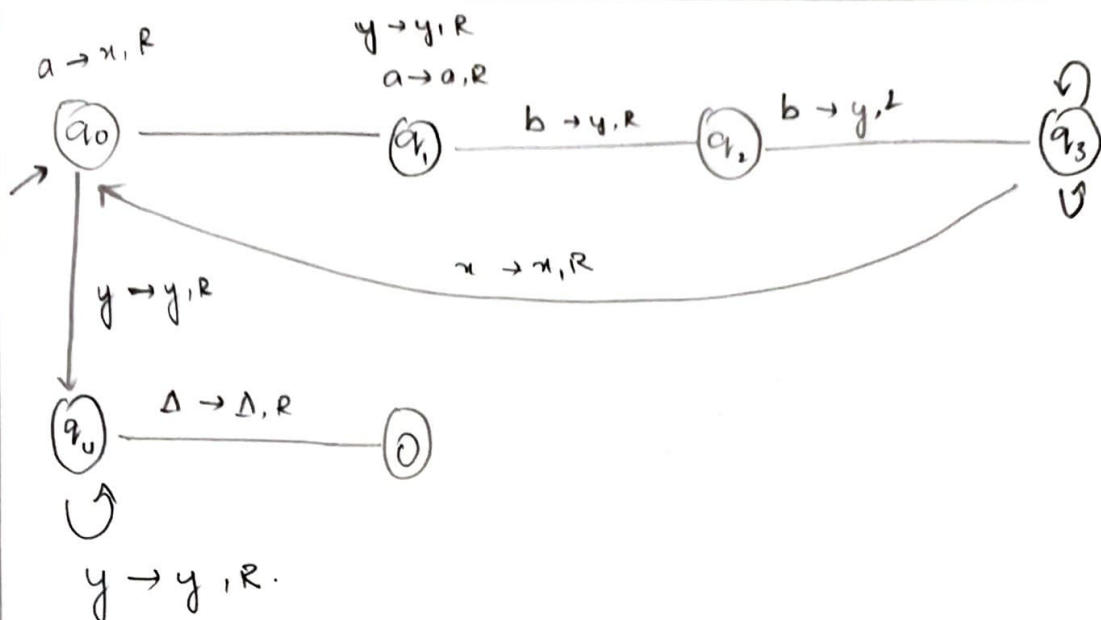design PDA using simulator to Accept the I/p string $a^n nb^{2n}$.

any / a : push a

a|b → ← a|b
a/b : pop
any / else c

Design TM with I/p $A^n AB^n$.

→ Design TM to accept the I/p string $A^n nB^n$.

gol :>

a : c, >
b:d , c
a,d : e
-:d :>

Design TM with Ip String $A^n nB^{2n}$.

→ Design TM To accept the input string $A^n AB^{2n}$.

aa   bb   bb
2a   YY
        ←
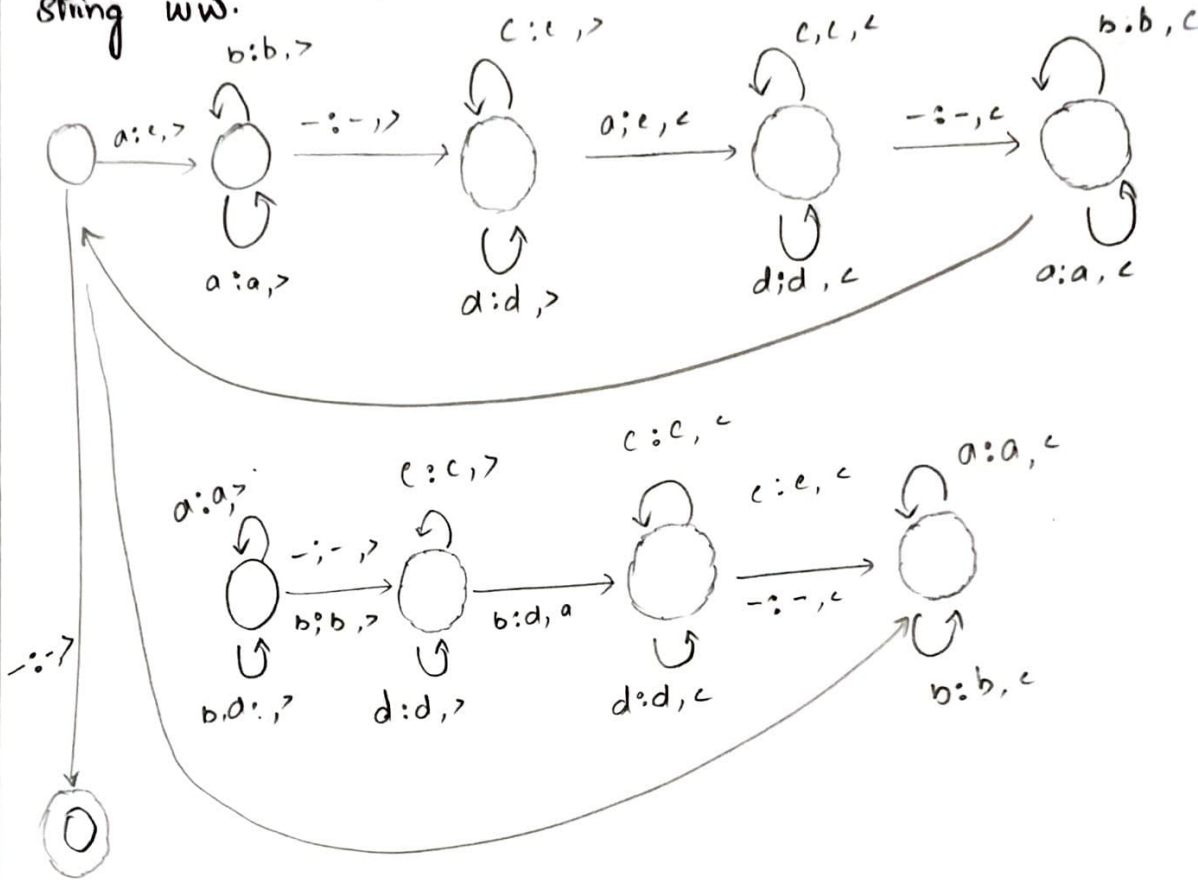X   YY   YY
                ←
2   YY   YX.
→   YY

$a \to x, R$

q_0

$y \to y, R$
$a \to a, R$

q_1

$b \to y, R$

q_2

$b \to y, L$

q_3

$x \to x, R$

$y \to y, R$

q_u $\Delta \to \Delta, R$ O

$y \to y, R.$

Design TM with s/p string palindrome obaber

→ design TM using simulator to accept the
Input String palindrome ababa.

$b:b; >$

$-:L$

$-:>$

$C:>$

$a:>$

$a:-,>$

$a:-,L$

$-:L$

$-b,a :L$

$b:-,>$

$b:-,<$

$b:>$

$-:L$

$a:>$
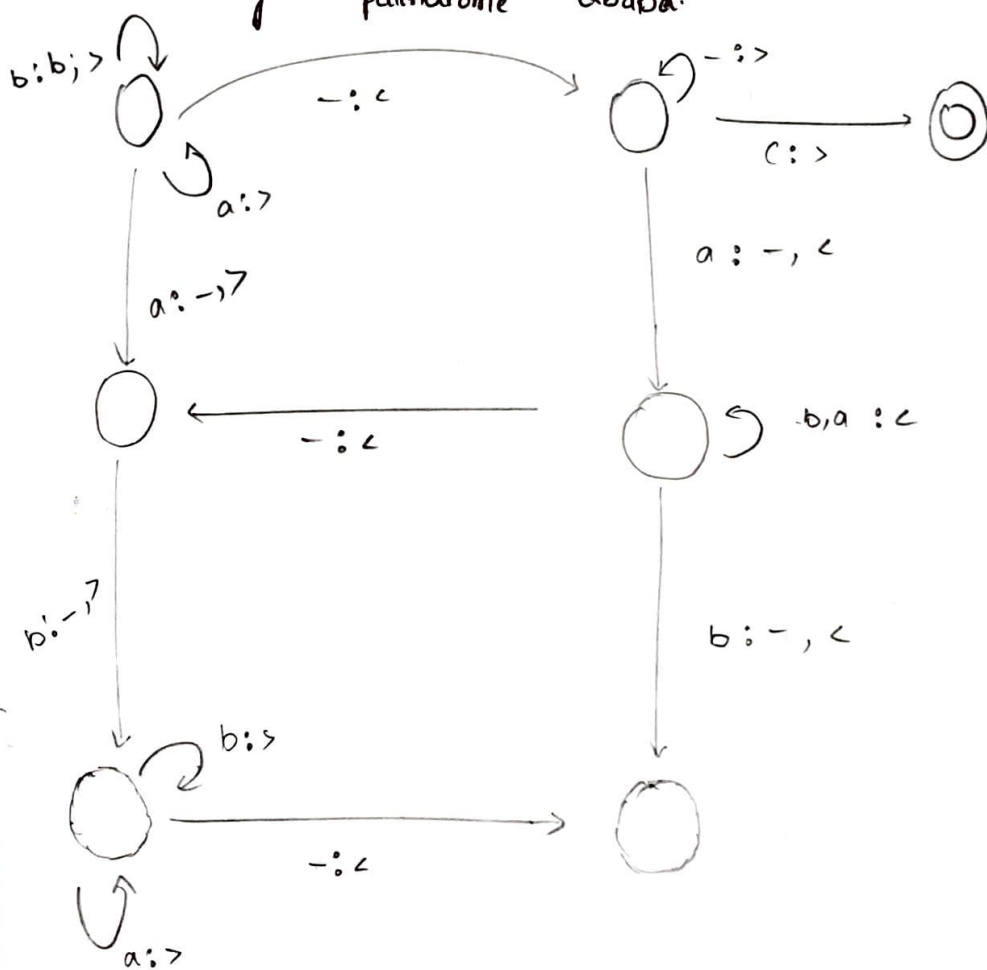
Design TM with I/p String ww.
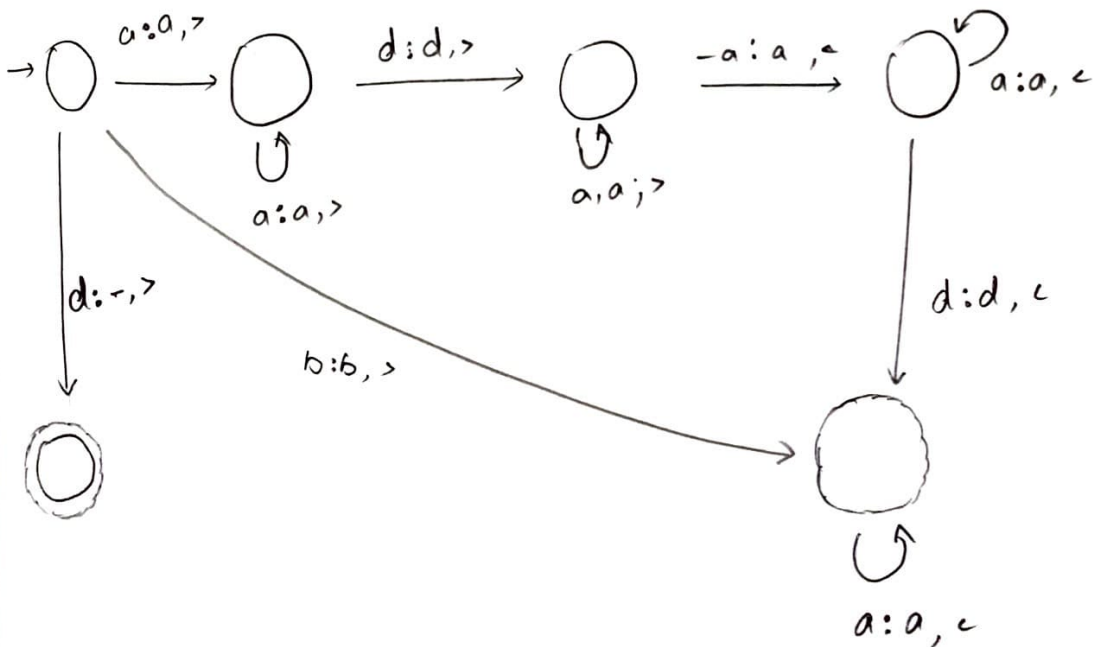
Design TM using simulator to write the input String ww.

Design TM with I/p `aa` & `aaa`

→ Design TM using simulator to perform addition of aa & aaa.

W = aa + aaaa

after addition of a's = aaaaa.
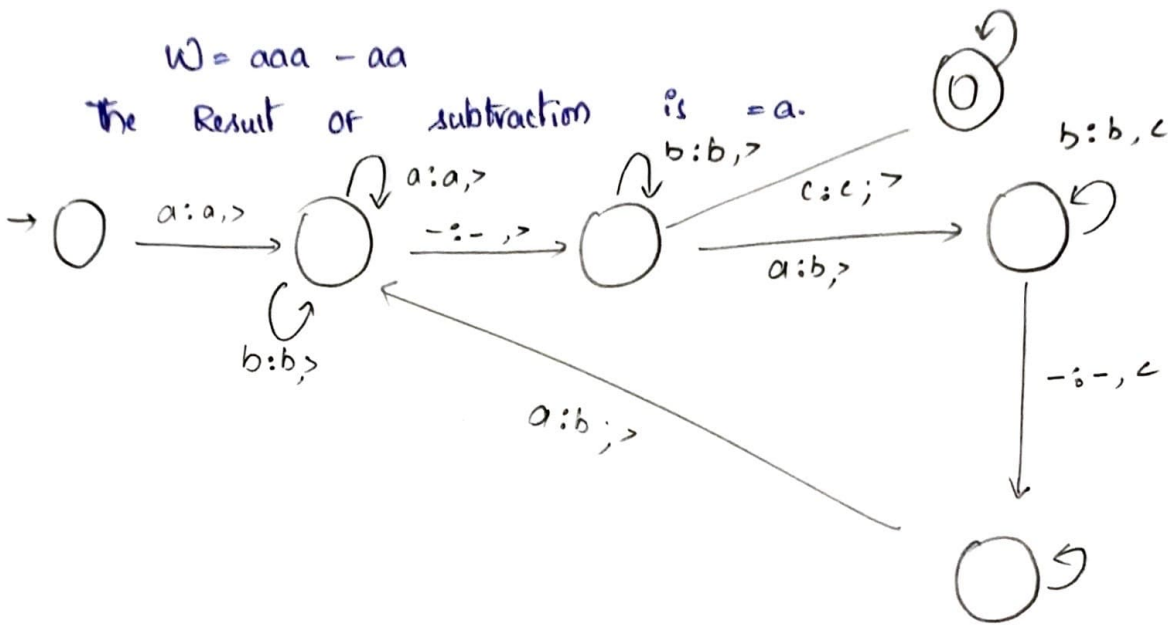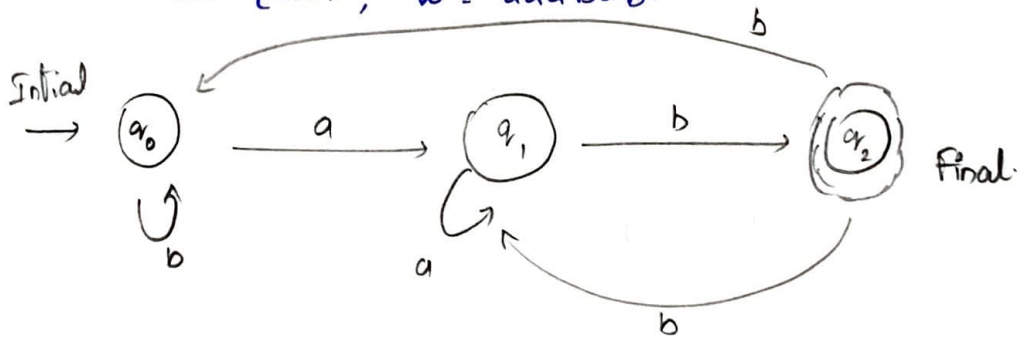
Design a TH with Ip string aaa - aa

→ Design Tm using simulator to perform subtraction of aaa - aa
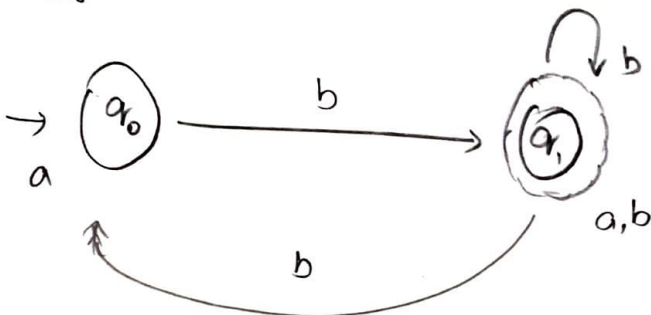
W = aaa - aa
The Result of subtraction is = a.

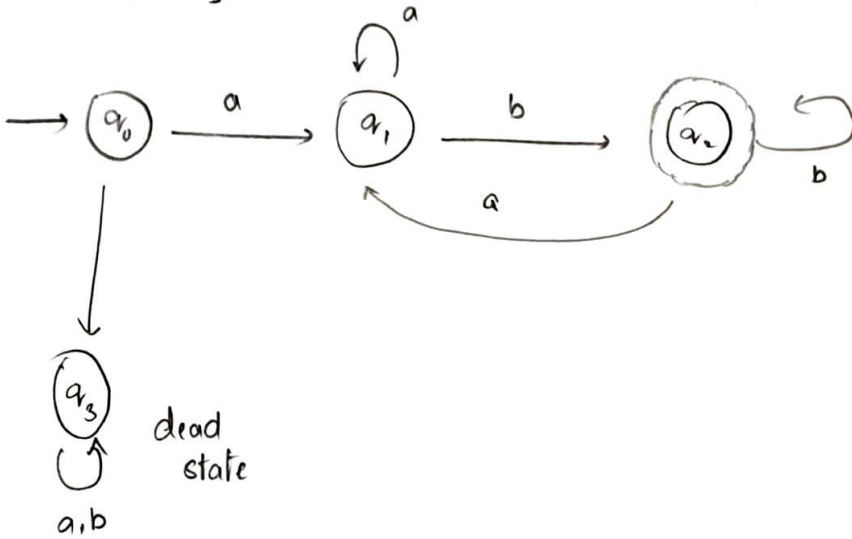Design DFA with I/p String End with ab
Over set [a,b], w = aaa ba b.

Design DFA to accept add's No's & a's
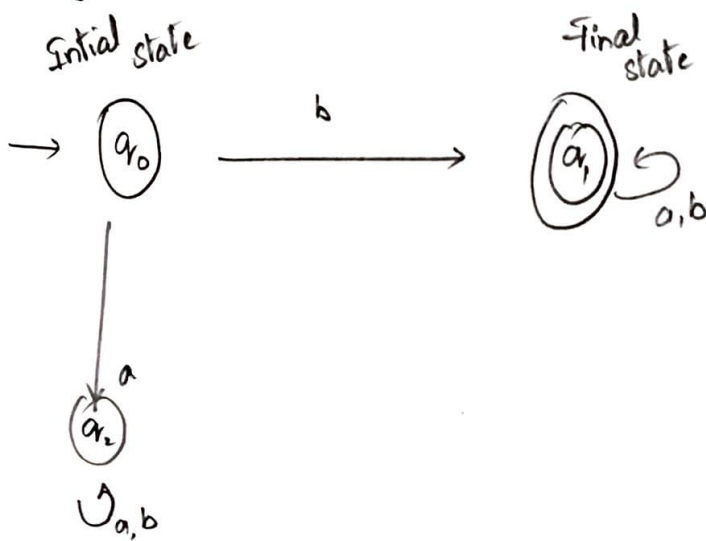
Design DFA to accept odd Numbers of a's.

Design DFA having 'ab' Over set · {a,b}

→ Design DFA being simulator to accept the string having 'ab' & substring over the Set {a,b}

q_3 dead state

a,b

Design DFA to accept a (or) B Over the Set {a,b}

→ design DFA using simulator to accept the String start with a (or) b Over the set {a,b}

Intial state

Final state

a

q_2

a,b

Design DFA to accept Even No. of a's.

→ Design DFA to accept Even Number of a's